COMPLEMENTARY INTEGRATED CIRCUIT AND METHOD OF MANUFACTURING SAME

Abstract of the Disclosure

A complementary integrated circuit comprises: an n-channel element having a gate electrode in which at least a portion contacting a gate insulating film is made of a first metal material having a work function close to the work function of n-type polysilicon; and a p-channel element having a gate electrode in which at least a portion contacting a gate insulating film is made of a second metal material having a work function close to the work function of p-type polysilicon. Preferably, the first metal material consists of a material selected from a group consisting of zirconium and hafnium, and the second metal material consists of a material selected from a group consisting of platinum silicide, iridium silicide, cobalt, nickel, rhodium, palladium, rhenium and gold. Alternatively, the first metal material may consist of a material selected from a group consisting of zirconium and hafnium, and the second metal material may consist of rhenium.